

Appl. No. 10/039,929  
Amtd. Dated August 9, 2005  
Reply to Office action of May 16, 2005  
Attorney Docket No. P13047US1  
EUS/JP/05-3181

### REMARKS/ARGUMENTS

#### **Claim Amendments**

The Applicant has canceled claim 1-6. Claims 7-17 have been added. Applicant respectfully submits no new matter has been added. Accordingly, claims 7-17 are pending in the application. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

#### **Claim Rejections – 35 U.S.C. § 103 (a)**

Claims 1-6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bargeton et al (US 4,402,075) hereafter referred to as Bargeton in view of Milliron et al. (US 6,208,670) hereafter referred to as Milliron. In order to expedite allowance of this application, the Applicant has canceled claims 1-6 without prejudice. Therefore, this rejection with respect to these claims is deemed to be moot.

The Applicant discloses an invention for replacing a regenerator with a passive repeater. In the current state of the art in HDSL networks a regenerator is positioned between a line terminal and a network terminal. The signal is terminated and regenerated and then sent on to the network terminal. This causes transmission delay and power consumption. In the Applicant's invention the passive repeater receives the signal and then forwards the signal to the network terminal. There is no processing of the signal other than amplification. In an embedded overhead channel, a free bit is used (origin bit) to indicate to the line terminal (access point) whether there is a loop in the repeater. If the detected origin bit is different from the origin bit of the signal, there is a loop in the repeater.

The Bargeton reference appears to disclose a system for remotely locating pairs of intermediate amplifying circuits which are included between a monitoring equipment and a remote equipment of a bidirectional PCM transmission (Field of the invention). Remote location as employed in the invention is based on the detection of interruptions in the PCM signal, which interruptions do not normally occur in the digital signal carried by the forward channel of the link from the monitoring equipment to the remote

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equipment. Bargeton counts interruptions. The repeaters in Bargeton include conversion means for converting the line-coded signal to a binary signal.

Bargeton does not disclose using a passive repeater (as in the Applicant's invention) that simply amplifies and forwards a signal from the line terminal. The Bargeton also reference fails to disclose the use of an origin bit in the embedded overhead (operations) channel to signal a loop in a repeater.

The Milliron reference appears to disclose a system for upgrading telephony voice and data services for rural locations having limited copper wire pair installations. The system employs remote drop units on a digital carrier line for distributing telephony voice and data signals between the Central Office (CO) and each subscriber's telephone. The digital telephony system includes a CO, a CO Terminal (COT), which is connected to the CO and to one end of a digital carrier line. Outgoing digital carrier line signals are generated at the COT, whereas the incoming digital carrier line signals are received at the COT and typically generated by a component downstream from the COT. The remote drop unit also can pass those incoming and outgoing carrier line signals carried on the digital carrier line, not intended for communication to the subscribers associated with the unit. These passed signals are typically amplified at the remote drop unit to increase signal levels, thereby eliminating the need to place bidirectional repeaters between any pair of remote drop units.

Though Milliron uses repeaters, the repeaters are not passive as in the Applicant's invention. Further Milliron fails to disclose the use of the origin bit and the embedded overhead (or operations) channel to determine whether there is a loop in the repeater.

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CONCLUSION

In view of the foregoing remarks, the Applicant believes all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Examiner withdraw all rejections and issue a Notice of Allowance for all pending claims.

The Applicant requests a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



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